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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/033,006 | 12/28/2001 | Ian J. Sherlock | TI-33724 | 7861 |

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TEXAS INSTRUMENTS INCORPORATED
P O BOX 655474, M/S 3999
DALLAS, TX 75265

| EXAMINER | |
|---|---|
| CHUEN, MICHAEL P | |
| ART UNIT | PAPER NUMBER |
| 2661 | |

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/033,006 | SHERLOCK, IAN J. | |
| | Examiner | Art Unit | |
| | Michael Chuen | 2661 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *28 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *18-36* is/are allowed.

6)☒ Claim(s) *1,8,9,12 and 14-17* is/are rejected.

7)☒ Claim(s) *2-7,10,11 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Specification*

1) The disclosure is objected to because of the following informalities:

"Interference monitor 54" (page 5, line 26 of the specification) in applicant's detailed description is misnumbered. Reference 54 is the LAN or network backbone. The interference monitor is referenced as 52 in Fig. 1.

The specification has a plurality of minor grammar mistakes. For instance, "wireless communicating" (page 6, line 17) should be "wirelessly communicating" and "access points 66" (page 9, line 23) should be "access point." Applicant should revise these and any other grammar mistakes.

Appropriate correction is required.

### *Claim Objections*

2) Claims 8 and 20 are objected to because of the following informalities:

In claim 8 line 3, "for determine" should be "to determine" or "for determining."

In claim 20 line 2, "raw basedband" should be "raw baseband."

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3) The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4) Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "a portion of" renders the claim indefinite because it is unclear which part of the interference monitor is being incorporated into the access point, host computer or mobile station system.

***Claim Rejections - 35 USC § 102***

5) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6) Claims 1, 15 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Ficarra.

In US patent number 6,775,544, Ficarra discloses a wireless communication system **100** comprising a plurality of base stations **120-140** (access points), a variety of subscribers **150-170** (mobile station systems) which communicate wirelessly with the base stations (column 2, line 35) and a method **1000** which can be performed by a switching center **110** (interference monitor). Method **1000** can be applied to test a subset of the base stations (column 3, line 52) and involves querying base stations for a probability distribution (error statistic data) calculated from counted samples of measured interference (column 3, line 54).

With respect to claim 15, switching center **110** is a stand alone device as shown in Fig. 1.

With regards to claim 17, Ficarra distinguishes between rogue interferers and intra-system interferers. He includes a rogue interferer R external to the wireless communication system **100** which the system attempts to detect.

***Claim Rejections - 35 USC § 103***

7) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8) Claims 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ficarra v. Yoshimi et al.

Ficarra discloses the invention described in the 102(e) rejection above. Ficarra lacks mobile station systems which can enter a passive mode while access points gather sample data to determine whether interference is present. Yoshimi et al. in US patent number 5,603,093 teach a mobile radio communication system with a mobile station always in a call waiting or standby state (column 3, line 37) while a base station acquires data and statistically processes it to analyze the state of the interference in the channel (column 3, line 53). It would have been obvious to one skilled in the art at the time of the invention to include a mobile station in a standby mode in order to reduce the overhead associated with the mobile station system always being in an active state.

With respect to claim 14, Ficarra fails to teach an interference monitor which be incorporated into an access point, host computer or mobile station system. Yoshimi et al. teach a base station (the applicant's access point) which performs the functionality of an interference monitor described above. It would have been obvious to one skilled in the art at the time of the invention to include interference monitor functionality at the base stations to alleviate the network load associated with a centralized interference monitor.

9) Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ficarra v. Iwata.

Ficarra discloses the invention described in the 102(e) rejection above. Ficarra lacks an interference monitor with the ability to reconfigure the network to minimize the effects of interference. Iwata in US patent number 5,845,209 teaches a mobile communication system which when an interference is detected at a base station, will reconfigure the network by sending a carrier changing request signal to a control station **25** which subsequently assigns another frequency to the said base station. It would have been obvious to one skilled in the art at the time of the invention to include a method of reconfiguring the network by changing frequencies in order to avoid interference caused at a certain frequency.

10) Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ficarra v. Schrader et al.

Ficarra discloses the invention described in the 102(e) rejection above. Ficarra lacks access points which are switchable between active and passive modes. Schrader et al. in US patent number 5,896,561 teach a communication network which includes base stations **14** which change from an active "polling" state to a dormant "listening" state based upon a channel loading threshold (column 5, line 55). These states correspond to the applicant's active and passive modes. It would have been obvious to one skilled in the art at the time of the invention to include base stations with the ability to switch between active and dormant states to reduce the overhead associated with an active state during light channel load.

11) Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ficarra v. Olkkonen et al.

Ficarra discloses the invention described in the 102(e) rejection above. Ficarra lacks a wireless communication system conforming to the IEEE 802.11b standard. Olkkonen et al. in US patent number 6,842,460 teach an ad hoc network which in one embodiment conforms to the IEEE 802.11b standard. It would have been obvious to one skilled in the art at the time of the invention to include conformity to the IEEE 802.11b standard due to the standard's built in methods of dealing with the presence of interferences.

***Allowable Subject Matter***

12) Claims 18-36 are allowed.

Claims 2-7, 10, 11 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

13) The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. Reed et al. disclose a wireless communication system which characterizes an interference.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Chuen whose telephone number is 571-272-5206. The examiner can normally be reached on Monday - Friday, 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MPC

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600